

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A semiconductor manufacturing apparatus using a plurality of gases for processing, comprising:

a chamber into which said plurality of gases flow;

a plurality of mass flow controllers provided corresponding to said plurality of gases;

a plurality of mass flowmeters, a mass flowmeter measuring each flow rate of said plurality of gases;

a plurality of valves controlling each flow of said plurality of gases; and

a control unit controlling opening/closing of said plurality of valves such that said plurality of gases flow into said chamber directly during an operation of said semiconductor manufacturing apparatus, and controlling opening/closing of said plurality of valves such that anyone of said plurality of gases flows into said mass flowmeter when inspecting said mass flow controller, wherein

said control unit selects a mass flowmeter having an optimum flow rate range among said plurality of mass flowmeters in accordance with a flow rate range of a mass flow controller to be inspected.

Claim 2 (Cancelled)

3. (Currently Amended) The semiconductor manufacturing apparatus according to claim 2 1, wherein

said control unit calculates an actual flow rate of a gas based on a flow rate set for said mass flow controller to be inspected and a conversion factor, and selects a mass flowmeter having an optimum flow rate range among said plurality of mass flowmeters.

4. (Original) The semiconductor manufacturing apparatus according to claim 1, wherein said control unit selects any mass flow controller for inspection from said plurality of mass flow controllers in accordance with an instruction. from an operator.

5. (Original) The semiconductor manufacturing apparatus according to claim 4, wherein said control unit inspects said mass flow controller selected for inspection based on an inspection range of said mass flow controller and an increment of said inspection range set by the operator.

6. (Original) The semiconductor manufacturing apparatus according to claim 5, wherein said control unit sets any value up to full scale for said mass flow controller as the inspection range of said mass flow controller.

7. (Original) The semiconductor manufacturing apparatus according to claim 1, wherein said control unit determines if a mass flow controller under inspection is acceptable based on a predetermined reference value, and

said semiconductor manufacturing apparatus further comprising a display unit displaying a result of said determination of said control unit.

8. (Original) The semiconductor manufacturing apparatus according to claim 1, further comprising

a second mass flow controller provided in parallel to a first mass flow controller among said plurality of mass flow controllers, wherein

said first and second mass flow controllers are of a same type, and

said control unit controls opening/closing of said plurality of valves so that said second mass flow controller operates when an anomaly is detected in said first mass flow controller.

9. (Currently Amended) ~~A~~ The semiconductor manufacturing apparatus according to claim 1, further using a plurality of gases for processing, comprising:

a chamber into which said plurality of gases flow;

a plurality of mass flow controllers provided corresponding to said plurality of gases;

a mass flowmeter measuring each flow rate of said plurality of gases;

a plurality of valves controlling each flow of said plurality of gases;

a control unit controlling opening/closing of said plurality of valves such that said plurality of gases flow into said chamber directly during an operation of said semiconductor manufacturing apparatus, and controlling opening/closing of said plurality of valves such that anyone of said plurality of gases flows into said mass flowmeter when inspecting said mass flow controller; and

an external port to which external inspection equipment is connected, wherein

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said control unit controls opening/closing of said plurality of valves so that any one of said plurality of gases flows into said external inspection equipment via said mass flowmeter and said external port.

Claims 10-14 (Cancelled)